

REMARKS

Reconsideration of the application as amended is respectfully requested.

The Examiner's communication dated Sept. 16, 2005 is acknowledged.

Claims 1 – 51 are pending. Of these, claims 32 – 51 are withdrawn from consideration under the restriction requirement. Claims 1 – 19 and 23 – 31 stand rejected as anticipated under 35 USC § 102. Claims 21 – 22 stand rejected for obviousness under 35 USC § 103.

By the present amendment, claims 21 – 22 are cancelled, claims 1 – 3, 9, 11, 14, and 23 – 31 are amended, and new claims 52 – 54 are added. After this amendment, claims 1 – 20, 23 – 31, and 52 – 54 are pending, and claims 32 – 51 remain withdrawn from consideration.

Amendment of the specification (title)

The title is amended to "THIN-FILM DEVICES AND METHODS FOR FORMING THIN FILMS THEREFOR" to more clearly indicate the invention to which the elected and amended claims are directed.

Rejections under 35 USC § 102

Claims 1 – 19 and 23 – 31 stand rejected under 35 USC § 102 as anticipated by Lin, US 5,188,902.

Claim 1 is amended to more clearly state and distinctly claim what the applicants believe to be their invention. Basis for the inserted limitation is found in the specification as filed at page 3 line 10 through page 5 line 15 (paragraphs [0007] – [0010] of the published application US 2005/0202681-A1) at page 6 lines 15 – 23 (paragraph [0013] of the published application), at page 13 line 20 – page 14 line 7 (paragraph [0027] of the published application), and in claims 22, 33, 36, 46, and 49 as filed. Those skilled in the art will recognize that materials described in the cited portions of the specification comprise conductive materials or precursors thereof. Claims 2, 3, 11, 14, and 30 are also amended for clarity. Basis for the amendments of

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claims 2 and 3 is found in the specification as filed at page 15 lines 4 – 8 (paragraph [0029] of the published application) and in claim 12 as filed. No new matter is added.

Regarding claims 1 – 19, claim 1 as amended recites (emphasis added): "A method of forming a thin film comprising: forming a layer of material on at least a portion of at least one surface of a substrate, *the layer of material being selected from a conductive material, a precursor of a conductive material, and combinations thereof*; and selectively modifying one or more material properties of at least one portion of the formed layer of material." Claim 11 is similarly amended, with the same basis as claim 1. Lin fails to teach the limitation of claims 1 and 11 and their dependent claims of the "the layer of material being selected from a conductive material, a precursor of a conductive material, and combinations thereof." Thus claims 1 – 20 as amended are clearly distinguished from Lin, US 5,188,902.

Regarding claim 20 specifically, the Examiner correctly states that Lin teaches forming one or more films in column 5 lines 1 – 7. Claim 20 recites "[t]he method of claim 11, wherein said thin film comprises one or more thin films." However, the cited portion of Lin states, in pertinent part (emphasis added): "To prepare multiple layers of *PT, PZT and PLZT by thermal-annealing*, the films were spin-coated, ... *dried* ..., and *consolidated* ... before adding additional layers. After the desired thickness was attained, the films were *annealed* at 600° C for 30 minutes." (emphasis added). The films prepared by thermal-annealing by Lin were cast films of micellar solutions (Lin, col. 4 lines 63 – 68). The additional steps required by Lin's preparation (italicized above) are not part of applicants' claim 20. PT, PZT, and PLZT are ferroelectric lead perovskites. The ferroelectric lead perovskites prepared by the method described in Lin are not conductive materials or precursors thereof. Thus, Lin fails to teach the limitation of claim 11 (inherited by claim 20) of the "the layer of material being selected from a conductive material, a precursor of a conductive material, and combinations thereof" and therefore fails to anticipate applicants' claim 20.

Regarding claims 23 – 31, these claims are all amended to more clearly state and distinctly claim what the applicants believe to be their invention. Basis for the inserted limitations is the same as listed above for the corresponding limitation inserted by amendment of claim 1. Claims 24 – 31, all of which depend upon claim 23, are amended to correct their improper antecedent references and thus to more clearly state and distinctly claim what the applicants believe to be their invention. Claim 23 recites, in pertinent part: "each of the one or more material layers being selected from a conductive material, a precursor of a conductive material, and combinations thereof". Again, Lin fails to teach this limitation of claim 23 and thus fails to anticipate claims 23 – 31.

Claims 1 – 19 and 23 – 31 also stand rejected under 35 USC § 102 as anticipated by Russell et al., US 5,310,990; Varshney et al., US 5,626,670; and Kamisawa, US 5,627,013. Like Lin, all of these references teach formation of ferroelectric films. None of these references teaches the limitation of "material layer[s] being selected from a conductive material, a precursor of a conductive material, and combinations thereof" of claims 1, 11, and 23 (and their respective dependent claims). Thus each of these references fails to anticipate claims 1 – 19 and 23 – 31.

For all of these reasons, applicants respectfully request withdrawal of all of the rejections under 35 USC § 102 and allowance of claims 1 – 20 and 23 – 31.

Rejections under 35 USC § 103

Claims 21 – 22 stand rejected for obviousness under 35 USC § 103 as being unpatentable over Lin, US 5,188,902 in view of Peng et al., US 2002/0016075. Applicants disagree with these rejections of claims 21 – 22 on grounds that no *prima facie* case of obviousness has been established. Nevertheless, in the interest of compact prosecution, claims 21 – 22 are cancelled hereinabove without prejudice.

New claims

New claims 52 – 54 are submitted to more clearly state and distinctly claim what the applicants believe to be their invention. Basis for these new claims is found in the specification as filed at page 3 line 10 through page 5 line 15 (paragraphs [0007] – [0010] of the published application US 2005/0202681-A1) at page 6 lines 15 – 23 (paragraph [0013] of the published application), at page 13 line 20 – page 14 line 7 (paragraph [0027] of the published application), and in claims 1, 11, 22, 23, 33, 36, 46, and 49 as filed. Those skilled in the art will recognize that materials described in the cited portions of the specification comprise conductive materials or precursors thereof. No new matter is added.

Conclusion

This response is believed to be fully responsive to each issue raised in the office action, but if the Examiner maintains any rejection, applicants would appreciate a more detailed explanation of precisely where in the references a combination is suggested and the relevant limitations are disclosed.

Applicants expressly reserve the right to file divisional and/or continuation applications with any of the canceled or non-elected claims, or with similar claims, or with claims to any subject matter disclosed in the present application or incorporated by reference.

Attorney Docket No. 200311972-1; Ser. No. 10/801,341

Applicants believe that the claims as amended are patentable over the prior art. The application is therefore believed to be in condition for allowance, which is respectfully requested.

Respectfully submitted,
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